

**ABSTRACT**

A method of analyzing a protein using laser ablation which comprises, in order to simultaneously atomize the atoms constituting the protein to be analyzed and ionize the same using a single laser source, irradiating the protein with laser beams and thus ablating the protein to thereby atomize the protein into the constituting elements and ionize the thus atomized constituting elements, and then analyzing the constituting elements thus ionized. The laser beams for ablating the subject protein are ultra-short pulse laser beams with which a chip having the protein fixed thereon is irradiated. Thus, the protein fixed on the chip is ablated with the ultra-short pulse laser beams so that the protein is atomized into the constituting elements and, at the same time, ionized followed by the analysis of the constituting elements thus ionized.